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Computer-Based Education
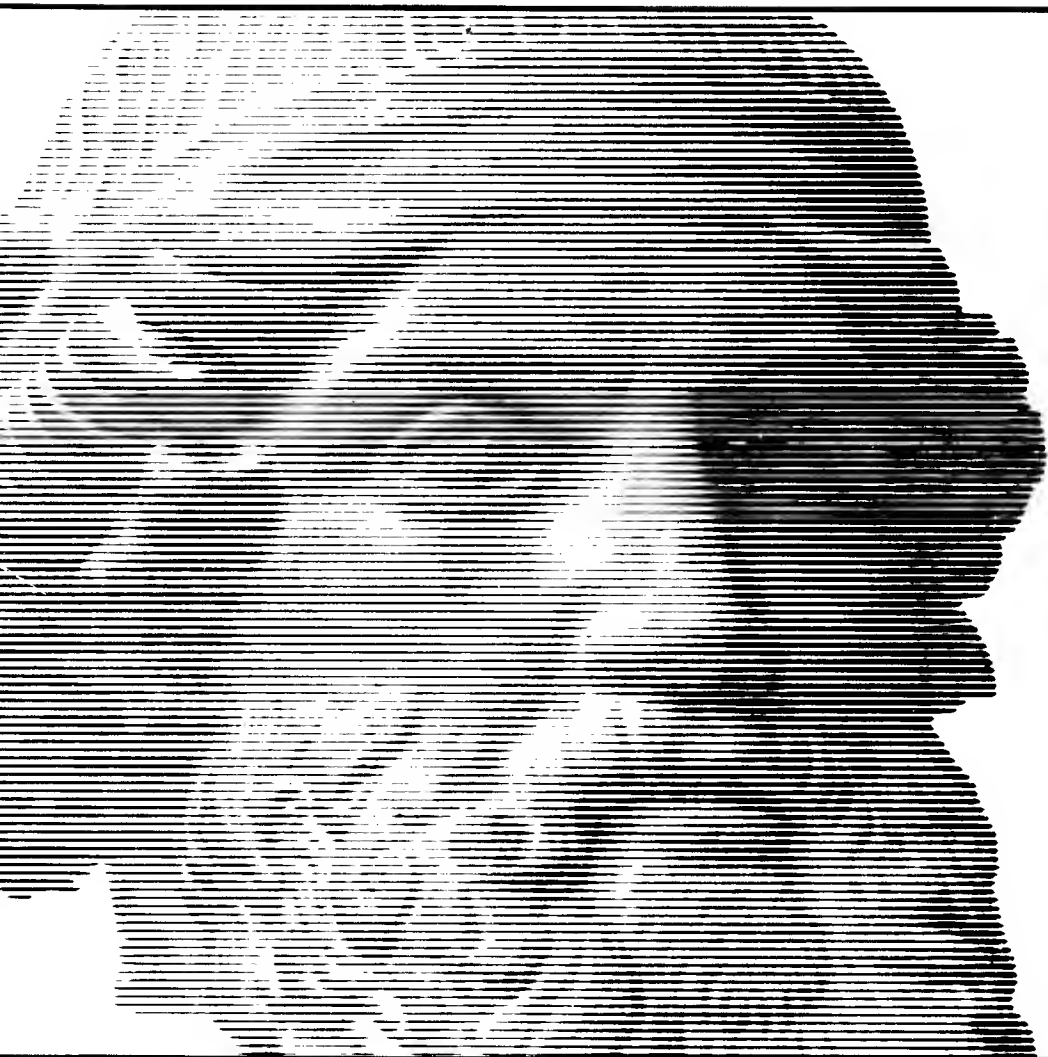
CONTROL DATA PUBLISHING

Fractions
Practice

Fractions

Practice

PLATO®
Educational Courseware

Adapted from:
Darts
A lesson originally created in 1973,
by Sharon Dugdale, David Kibbey,
and Barry Cohen
while at the University of Illinois.

Credits

Additional materials developed by Control Data Corporation.

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Introduction

Fractions *Practice* is a Control Data PLATO educational courseware package. The computer activity is called PLATO Darts. It is available for use on Apple II* Plus, Apple IIe, ATARI** 800, and TI*** 99/4A microcomputers.

Darts is designed to be an educationally sound learning tool that increases your ability to perceive and identify fractional distances using integers, fractions, decimals, and/or expressions. A dart game format with balloons as targets is used. To break a balloon, you must estimate its location on a number line.

The Darts activity is intended to help improve your skills with fractions in the following areas:

• Fractional differentiation and identification

• Visual determination of fractional intervals

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*Apple II is a trademark of Apple Computer, Incorporated.
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Lesson Flow

When the activity begins, you must respond to the following two preliminary questions generated by the computer:

1. Do you want to see the instructions or begin playing immediately?

   Enter Y (yes) or N (no).

2. Do you want to include negative numbers?

   Enter Y (yes) or N (no).

   The negative numbers feature requires that you identify fractional decrements as well as increments between given points.

Lesson

The Darts Lesson contains 10 levels of exercises. Users usually begin the lesson at level 3.

At the beginning of each exercise, a vertical number line appears on the right side of the screen with given points at equal intervals along the line. Balloons are tied to the line at random locations. The location of each balloon can be identified by a fraction, a decimal, or a whole number on the number line. A message appears telling you to shoot a dart.

Study the intervals and estimate the location of a balloon. To shoot a dart at the balloon, type and enter the estimated location of the balloon. A dart appears on the left side of the screen and moves toward the number line. When the dart hits the line, it remains stuck to the line and its numeric location appears to the right of the number line. If your estimate is correct, the dart hits a balloon and the balloon pops.

If a number is entered that is not between the end points of the line, a message appears telling you that the number entered is off the line. The computer will not accept nonnumeric entries.

You may use any of the following types of numbers to identify a location on a number line:

- Whole numbers (for example: 1, 3, 5)
- Fractions (for example: 1/2, 3/10, 23/25)
- Mixed numbers (for example: 1 1/2, 7 4/5)
- Decimals (for example: 0.5, 3.7, 4.0615)
- Expressions (for example: 2 + 2/3, 1/2 - 0.03, (5 + 5)/(1.5 x 2))

When you have broken all of the balloons, the next exercise appears. Depending on your performance on the previous exercise, the level will either be raised, lowered, or remain the same. The higher the level, the more difficult the exercise. Succeeding levels may have smaller balloons and/or require more precise estimation.

When you successfully complete the tenth level, the computer displays a message of congratulations. The option to continue to play is also offered. If you select the option to continue, the computer continues to provide extra games at the higher levels of difficulty until you exit the lesson.

Distribution Information

Control Data Publishing Company, Inc. publishes quality courseware packages to supplement and support a variety of subject matter areas.

For additional information on this and other PLATO educational courseware, please write to:

Control Data Publishing Company, Inc.
P.O. Box 261127
San Diego, CA 92126

or

Call Toll Free:
800/233-3784

In California, call:
800/233-3785

Notes

Notes

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Other lessons are also available in these subject areas:

☐ Computer Literacy
☐ Foreign Languages
☐ Life Coping Skills